

Paper on the NRCS Geospatial Strategy and the National Cartography and Geospatial Center Services, Fort Worth, Texas

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Mission

The National Cartography and Geospatial Center (NCGC) provides the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) with technical leadership and expertise in mapping sciences, cartography, geographic information systems (GIS), aerial photography, remote sensing (RS), global positioning systems (GPS), imagery, natural resources data, geospatial technology, National Resources Inventory (NRI) and Soil Survey.

Vision

Delivering geospatial business solutions—The NCGC supports the mission of NRCS by developing effective applications of geospatial technologies.

NCGC Business Plan

The business plan focuses on the three core business areas: Geospatial Data, Geospatial Technology, and Geospatial Services. These core business areas are linked to and are in line with the Agency's five key business lines through the national strategic plan and the national NRCS business plan.

Key Services

- Serve as a focal point for developing NRCS geospatial business requirements
- Provide conservation enabling valued added geospatial products
- Develop and support strategies for the acquisition, integration, and delivery of geospatial data via the Geospatial Data Gateway and other means
- Provide leadership for national data layers development for NRCS and USDA, ensuring program needs and standards are met
- Evaluate and recommend GIS/GPS technology and develop GIS/GPS procedures, applications, and tools
- Provide technical support for GIS and Global Navigation Satellite Systems (GNSS)
- Develop and advocate an elevation data strategy for NRCS business applications to include LIDAR, IFSAR, and USGS 10- and 30-meter DEMs
- Provide services to the NRI Business program, the three Remote Sensing labs, and to the State resources inventory coordinators
- Support the National Cooperative Soil Survey Program, National Soil Geospatial Database development, and Web Soil Survey
- Conduct technical reviews of Soil Survey Geographic (SSURGO) data, produce digital map finishing products, produce hard copy soil survey publications, and provide technical assistance as needed
- Provide leadership and guidance in conducting Geographic Information System/Global Positioning System (GIS/GPS) training and Web seminars on GIS/GPS and other mapping sciences
- Produce complex custom thematic and status maps for NRCS customers

- Provide design, layout, editorial, and illustrative assistance for the development of a variety of NRCS documents including handbooks, manuals, and technical notes
- Foster Federal and other partnerships for geospatial business solutions such as NCGC's partnership with Farm Services Agency–Aerial Photography Field Office and the USGS
- Serve as the official NRCS ESRI Authorized Learning Center and maintain a core of authorized geospatial trainers

NCGC Geospatial Web Map Service

The NCGC Geospatial Web Map Service (WMS) enables NRCS program staffs to access essential geospatial data for Conservation Planning, Soil Survey, Engineering Application, NRI and Assessment, and Disaster Response activities. The WMS enables scientific research and development opportunities within all NRCS program areas. The NCGC Geospatial WMS data resources include updated raster and vector datasets in the form of imagery, elevation, soils, DRGs, 1:24,000 Hydrography (NHD), Transportation/ TeleAtlas, National Land Cover Data, and other Agency business spatial layers. Users can visualize and analyze an area of interest across the Internet that will enhance agency efficiency by providing direct access to geospatial data stored in a centralized authoritative data repository maintained by the USDA/NRCS. The spatial data can be retrieved from a desktop, laptop, wireless mobile device, or anywhere an Internet connection exists. The NCGC Geospatial WMS is maintained by robust ArcGIS servers that operate on a 24-hour, 7-day a week schedule.

The NRCS National Geospatial Report focus on the NRCS geospatial business requirements and business cases for:

1. Optimize and standardize geospatial data, technology, and services,
2. Enhance Governance, and
3. Enhance geospatial planning and investments

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United States Department of Agriculture
Natural Resources Conservation Service

National Cartography & Geospatial Center

Geospatial Solutions

NRCS Geospatial Strategy

Geospatial Technology

- Geographic Information Systems
- Global Positioning Systems
- Web Maps
- Data Marts and Warehouses

Geospatial Data

- Digital Orthophotography
- Elevation Data
- National Agriculture Imagery Program
- High Resolution Imagery

Geospatial Services

- Geospatial Analysis
- Web Map Service
- NRI and Soil Support
- High Accuracy GPS

Helping People Help the Land

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